

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

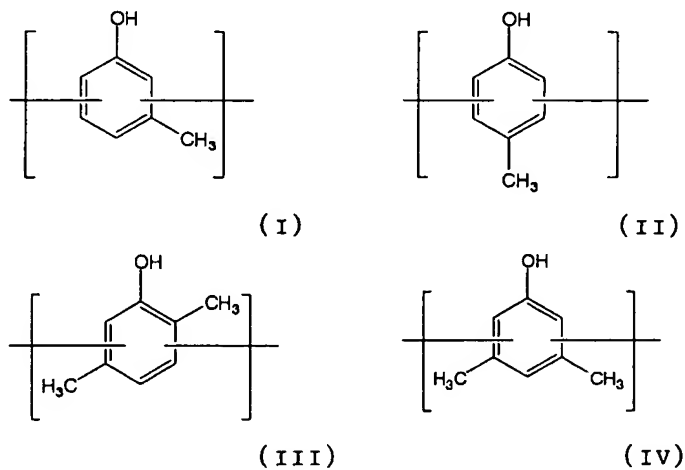
LISTING OF CLAIMS:

Claim 1 (currently amended): A phenol novolak resin:

having a peak intensity ratio of ortho-ortho bond (o-o)/ortho-para bond (o-p)/para-para bond (p-p) not substantially varying in each molecular weight fraction, said peak intensity ratio being detected in a resin structure by ^{13}C -NMR analysis; and

having a weight average molecular weight (Mw) of 3,000 to 20,000 in terms of polystyrene; and

comprising at least two selected from phenol constitutional units represented by the following formulae (I) to (IV):



wherein the phenol novolak resin does not comprise 3,4-xylenol.

Claim 2 (canceled).

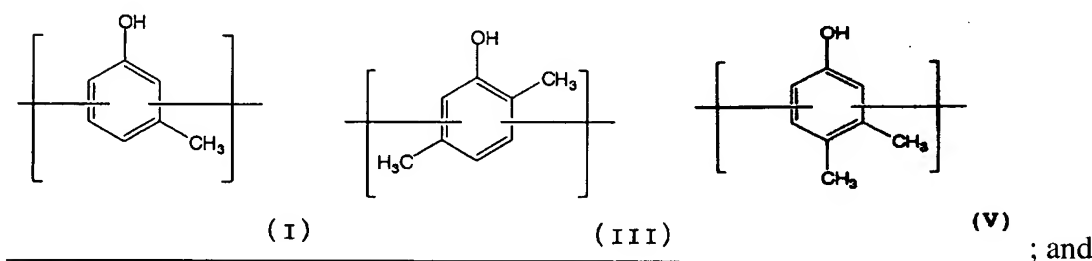
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Claim 3 (currently amended): A phenol novolak resin:

having a peak intensity ratio of ortho-ortho bond (o-o)/ortho-para bond (o-p)/para-para bond (p-p) in a range of 3.0-5.0/2.0-3.5/1, said peak intensity ratio being detected in a resin structure by ^{13}C -NMR analysis and not substantially varying in each molecular weight fraction;

comprising phenol constitutional units represented by the following formulae (I), and (III), ~~as defined in claim 1 and the following formula (V); and~~ :

~~having a weight average molecular weight (Mw) of 3000 to 20000 in terms of polystyrene~~



having a weight average molecular weight (Mw) of 3,000 to 20,000 in terms of polystyrene.

Claim 4 (currently amended): A phenol novolak resin:

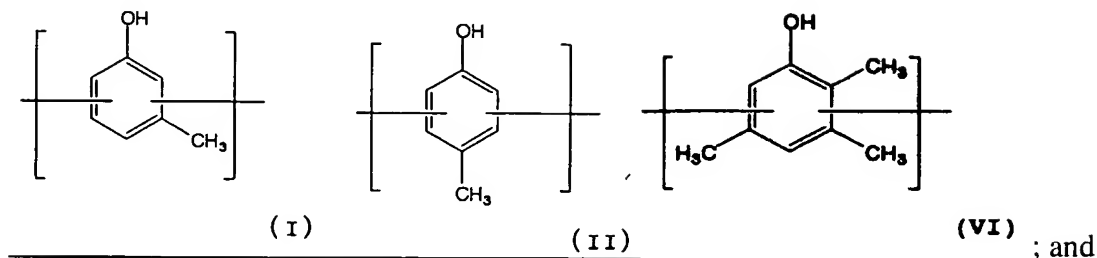
having a peak intensity ratio of ortho-ortho bond (o-o)/ortho-para bond (o-p)/para-para bond (p-p) in a range of 5.0-8.5/2.5-4.5/1, said peak intensity ratio being detected in a resin structure by ^{13}C -NMR analysis;

comprising phenol constitutional units represented by the following formulae (I), and (II), ~~as defined in claim 1 and the following formula (VI); and~~ :

~~having a weight average molecular weight (Mw) of 3000 to 20000 in terms of polystyrene~~

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having a weight average molecular weight (Mw) of 3,000 to 20,000 in terms of polystyrene.

Claim 5 (currently amended): A phenol novolak resin according to ~~any one of claims 1 to 3~~ claim 1 or claim 3, wherein a ratio of the peak intensities of para-para (p-p) bond to the total of the peak intensities of ortho-ortho bond, ortho-para bond, and para-para bond [(o-o)+(o-p)+(p-p)] is in a range of 10% to 20%.

Claim 6 (original): A phenol novolak resin according to claim 4, wherein a ratio of the peak intensities of para-para bond (p-p) to the total of the peak intensities of ortho-ortho bond, ortho-para bond, and para-para bond [(o-o) + (o-p) + (p-p)] is in a range of 5% to 15%.

Claim 7 (currently amended): A phenol novolak resin according to ~~any one of claims 1 to 6~~ claim 4, wherein a resin film formed by the use of the phenol novolak resin dissolves in a 2.38% by weight aqueous tetramethylammonium hydroxide solution at 25°C at a rate of 0.01 to 0.001 $\mu\text{m/s}$.

Claim 8 (original): A process for producing a phenol novolak resin, comprising the steps of:

- (a) subjecting a phenol to a polycondensation reaction in the presence of an acid catalyst;
- (b) removing water from a reaction system;

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(c) decomposing, in the presence of an acid catalyst, the polycondensation product obtained in the step (a); and

(d) subjecting the resulting product to a polycondensation reaction with an aldehyde or a ketone.

Claim 9 (currently amended): A positive photosresist composition comprising a phenol novolak resin according to ~~any one of claims 1 to 7~~ claim 4, and a 1,2-naphthoquinonediazide-group-containing compound.

Claim 10 (new): A phenol novolak resin according to claim 1, wherein a resin film formed by the use of the phenol novolak resin dissolves in a 2.38% by weight aqueous tetramethylammonium hydroxide solution at 25°C at a rate of 0.01 to 0.001 $\mu\text{m/s}$.

Claim 11 (new): A phenol novolak resin according to claim 3, wherein a resin film formed by the use of the phenol novolak resin dissolves in a 2.38% by weight aqueous tetramethylammonium hydroxide solution at 25°C at a rate of 0.01 to 0.001 $\mu\text{m/s}$.

Claim 12 (new): A positive photosresist composition comprising a phenol novolak resin according to claim 1, and a 1,2-naphthoquinonediazide-group-containing compound.

Claim 13 (new): A positive photosresist composition comprising a phenol novolak resin according to claim 3, and a 1,2-naphthoquinonediazide-group-containing compound.